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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,530	03/06/2001	Edward L. Schwartz	74451P127D10	4151

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07/15/2004

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EXAMINER

SHERALI, ISHRAT I

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/800,530

Applicant(s)

EDWARD SCHWARTZ

Examiner

Sherali Ishrat

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>16</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments/Amendment

1. This action is in response to amendment/arguments filed on 4/13/04.

Applicant's arguments are fully considered however they are moot because of new grounds of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-20 are rejected under rejected under 35 U.S.C. 103(a) as being unpatentable over Lynch et al. (US 6,229,929).

Regarding claims 1, 9, and 20 Lynch discloses receiving a sequence of image data (See Lynch, col. 14, lines 6-9, filter 106 [figure 4] receiving sequence of image data to transform the image data into subband as shown in figure 12);

specifying a scalar quantization with power of two step size (See Lynch, col. 14, lines 41-45, Lynch shows "performing quantization by a power of two" which is equivalent to quantization with power of two step size $[2^N]$)

the bit values specify a number of bit planes to be truncate during the quantization (See Lynch, col. 14, lines 48-51, Lynch shows the number lower order bits are truncated/discarded using quantization by power of two $[2^N]$ " bit value will

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obviously depend on the value "N" i.e $N = 0, 1, 2, \dots, n$, the number of bit planes to be discarded).

Lynch has not explicitly shown using three bit value to specify a number of bit planes to be truncated. The specification on page 58, line 16, define three [3] –bit value to be (0,.....7) which is image data of 8-bit depth. It will be obvious in the system of Lynch to use transform coefficients of 8-bit depth and use binary three bit values to represent N (0....7 which is number of bit planes) to perform quantization by a power of two (2^N) because such a system provide quantization of transform levels of 8-bit level.

Regarding claims 2, 10 and 19, Lynch disclose coding bitplanes specified for the scalar quantization (See Lynch, col. 14, lines 48-51, Lynch shows the number lower order bits are truncated/discarded using quantization by power of two [2^N] “ transform coefficients in the system of Lynch are coded by discarding lower order bits).

Regarding claims 3, and 11 Lynch disclose non-specified bit planes are not coded (See Lynch, col. 14, lines 48-51, Lynch shows the number lower order bits are truncated/discarded using quantization by power of two [2^N] “ transform coefficients in the system of Lynch are coded by discarding lower order bits and thereby higher order bits are not discarded and therefore not coded).

Regarding claims 4, and 12, Lynch discloses all bit planes are truncated when each of three bits representing the three bit value has a logical value one (See Lynch, col. 14, lines 48-51, Lynch shows the number bits are truncated/discarded using

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quantization by power of two $[2^N]$, in the system of Lynch if $N = 7$ and binary equivalent of 7 is 111 thereby all bits will be discarded if transform coefficient is 8-bit level).

Regarding claims 5 and 13, Lynch discloses the three bit value specify 0, 1, 2, 3, 4, 5, 6 or all bit planes are discarded (See Lynch, col. 14, lines 48-51, Lynch shows the number bits are truncated/discarded using quantization by power of two $[2^N]$, depending on the value of N (0, 1...6, 7) and using three bit binary value to represent 0, 1, ...6, 7 it will discard 0, 1, 2, 3, 4, 5, 6 or all bit planes depending on the value of N).

Regarding claims 6 and 14, Lynch discloses specifying scalar quantization comprise specifying quantization for motion video sequence (See Lynch, col. 14, lines 48-51, Lynch shows the number bits are truncated/discarded using quantization by power of two $[2^N]$, and figure 4, Lynch shows transform coding of motion video).

Regarding claims 7, 15, and 18 Lynch has shown video sequence as discussed above. Lynch however has not disclosed video sequence comprise JPEG 2000 standard video sequence. However Lynch shows transform coding of video sequence as show in figure 4 and shows variable length coding on col. 14, lines 54-56 which are also used in the JPEG 2000 standard video sequence therefore it would be obvious in the system of Lynch that video sequence comprise JPEG 2000 standard.

Regarding claims 8 and 16, Lynch disclose writing the three bit values to a controller to cause to controller to control compression hardware (See Lynch, col. 14, lines 48-51, Lynch shows the number bits are truncated/discarded using quantization by power of two $[2^N]$, depending on the value of N (0, 1...6, 7) and using three bit binary value to represent 0, 1, ...6, 7 it will discard 0, 1, 2, 3, 4, 5, 6 or all bit planes depending

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on the value of N and col. 14, lines 52-55, Lynch shows after quantization [discarding/truncating of bits using 2^N quantization] of transform coefficients are entropy encoded. It is obvious that those bits of the block are coded which are not discarded therefore in the system of Lynch controller of compression has knowledge of N [three bit values] to the quantize the coefficients and compressed the quantized coefficients).

Regarding claim 17, Lynch discloses the difference between claim 1 and 17, which is the following:

a compressor coupled to the controller to compress the sequence image data to create compressed data (See Lynch, col. 14, lines 25-30, blocks [sequence of image] are compressed using linear/non-linear transform coding by performing sequences of passes. Lynch shows blocks are compressed by performing sequences of passes therefore Lynch compressor is coupled to controller so the sequences of passes can be controlled),

the compressor comprising quantizer (See Lynch, col. 14, lines 36-38, compressed block are quantized. Lynch compressor comprises quantizer because in the system of Lynch compressed blocks are quantized).

Communication

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherali Ishrat whose telephone number is 703-308-9589. The examiner can normally be reached on 8:00 AM - 4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau can be reached on 703-305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

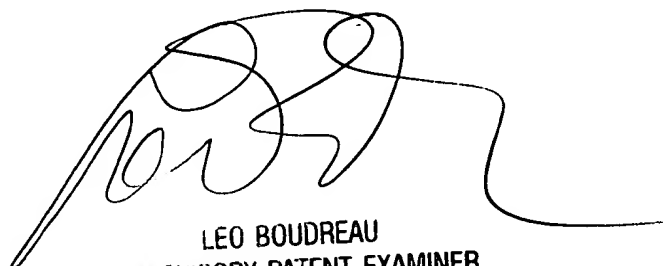


Ishrat Sherali

Patent Examiner

Group Art Unit 2621

July 6, 2004



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